WHAT IS CLAIMED IS:

1. An extractor for extracting a pin or another component that is pressed into a hole and protrudes from the hole, the extractor comprising:

a cylindrical section with a gripping element having a tubular basic body;

a guide tube, said tubular basic body being axially adjustable in said guide tube;

gripping jaws provided at an outer end of said tubular basic body, said gripping jaws having a conical outer jacket surfaces, said gripping jaws for attaching said gripping element to said straight pin or said cylindrical section, said basic body being pulled axially into said guide tube, as a result of which said gripping jaws are pressed radially inwardly by said conical jacket surfaces in cooperation with said guide tube, so that a snug hold of said gripping jaws at said straight pin or said cylindrical section is brought about;

a mechanical adjusting drive;

an extractor with a support tube that can be pushed over said guide tube and is axially adjustable in relation to said guide tube by means of said mechanical adjusting drive, said support tube being supported axially indirectly or directly in an area surrounding said straight pin during the axial adjustment.

2. An extractor in accordance with claim 1, wherein the mechanical adjusting drive is formed by at least one eccentric lever provided with a cam plate actuated manually and mounted pivotably at said support tube and said cam plate is supported axially at an axially protruding support flange of said guide tube during the pivoting movement of said eccentric lever.

3. An extractor in accordance with claim 1, wherein for direct support at said component in an area surrounding said straight pin a length of said support tube is adapted to a length of said guide tube such that said support tube ends approximately flush with said guide tube in its axial starting position with said adjusting drive not actuated.

4. An extractor in accordance with claim 1, wherein said adapters can be pushed axially over said support tube and are provided for the indirect support of said support tube in an area surrounding the straight pin.

5. An extractor in accordance with claim 1, wherein a length of said support tube is considerably shorter than a length of said guide tube and a support frame is provided as an adapter together with a support ring through which said guide tube passes axially to said component to be extracted during use, and said extractor is supported axially via said support ring and said support frame at said component into which said component is inserted.

6. An extractor in accordance with claim 5, wherein one or more said intermediate rings of equal or different axial length is/are provided, via which a length of said guide tube that passes through said support ring can be set to different values.

7. An extractor in accordance with claim 1, wherein said support tube is provided at an end of said support tube located toward said guide tube with a bearing flange, in which said eccentric lever or eccentric levers is/are mounted pivotably, and one or more said tension springs,

by which said guide tube is reset into its starting position during the release of said eccentric levers in said support tube, is/are provided between said support flange of said guide tube and said bearing flange of said support tube.

8. An extractor in accordance with claim 1, further comprising:

a pulling spindle for pulling said basic body into said guide tube, said pulling spindle being provided at one of its ends with a external thread with which said pulling spindle engages an internal thread of said basic body for the axial adjustment of said basic body in said guide tube and said threaded pulling spindle is mounted axially snugly and rotatably in said guide tube in a head part of said guide tube which is located axially opposite said basic body.

9. An extractor in accordance with claim 8, wherein said pulling spindle has a wrench profile protruding axially from said guide tube at its end located opposite said gripping element and a knurled head is fastenable in an axial extension to said wrench profile.

10. An extractor in accordance with claim 8, further comprising: a ratchet which can be reversed for rotation to the right and for rotation to the left and is captively secured on said wrench profile.

11. An extractor in accordance with claim 1, further comprising further and different gripping elements with associated gripping jaws of different designs, which can be arranged interchangeably with one another in said guide tube, said different gripping jaws being provided

with said radially inwardly directed clamping surfaces forming an approximately round hollow cylinder of different diameters interrupted in the circumferential direction in a nontensioned starting position.

12. An extractor in accordance with claim 10, wherein said clamping surfaces of said gripping jaws have different surface structures and are optionally provided with internal teeth or with a hard metal surface coating.

13. An extractor in accordance with claim 1, wherein said gripping jaws are provided with axial extension sections axially protruding over said guide tube by several mm, and a larger recess is provided in an area of at least one of said longitudinal slots separating said gripping jaws together with said extension sections.